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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,200	03/31/2004	Dan Seeman	BEAS-01512US0	9498
23910	7590	03/05/2008		
FLIESLER MEYER LLP 650 CALIFORNIA STREET 14TH FLOOR SAN FRANCISCO, CA 94108			EXAMINER VU, TUAN A	
			ART UNIT	PAPER NUMBER
			2193	
			MAIL DATE	DELIVERY MODE
			03/05/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,200	Applicant(s) SEEMAN ET AL.	
	Examiner Tuan A. Vu	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/31/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the application filed 3/31/2004.

Claims 1-21 have been submitted for examination.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 4, 11, 18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4, 11, 18 of copending Application No. 10,814,546 (hereinafter '546).

Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following observations. Following are but a few examples as to how the certain claims from the instant invention and from the above copending application are conflicting with each other.

As per instant claim 4, '546 claim 4 also recites a system with a interpretive engine that receives and translates generic interface commands from a tester, a native library for mapping commands to a native language, wherein the interpretive engine uses the native library to map directives into tool-dependent codes passed to the test software tool, and an editor. Even though

'546 claim 4's editor includes a rules-based wizard, this wizard feature would amount to an obvious variant to instant claim 4's recited "editor" (provided as GUI interface) for entering test directives under the control of an interpretive engine notably because the control functionality of a interpreter.

As per **instant claim 11**, '546 claim 11 also recites method comprising 'allowing a tester ... directives'; 'translating, using an interpretive engine ... mapping using a native library ... test software tool', 'wherein the interpretive engine ... to map ... passed test software tool'. As for the editor limitation, '546 wizard feature would have been an obvious variant to the editor of instant claim 11.

Likewise, as for **instant claim 18**, '546 claim 18 is obvious over instant claim 18, by virtue of it being a Beauregard version of instant claim 11.

4. Claims 4, 11, 18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4, 11, 18 of copending Application No. 10,814,563 (hereinafter '563).

As per instant claim 4, '563 claim 4 recites interpretive engine that includes a plurality of DLLs, wherein the engine receives commands in a test case, loads required libraries and invokes software to perform testing operations on the GUI interface, a GUI editor/wizard to allow user to enter to edit and create test case input. Even though '563 does not explicitly recite 'native library' being used for 'mapping directives from user' received at the interpretive engine into tool-dependent codes, the provision of DLLs as in '563 amounts to reusable libraries ready for a given executing application or environment, and it would be obvious for one skill in the art to use reusable libraries to enable loading of said native form of DLLs based on mapping of tool-

dependent codes against directives conveyed in '563 as 'generic commands ... map ... to corresponding tool-specific test operations', because reading directives as by the engine in '563 to load the proper DLL amounts to an obvious variation of providing a native library to correspond user's input into native codes specific to the operation or tool performing the testing or debugging as recited in '563 claim 4.

Likewise, **instant claims 11, 18** are conflicting with the subject matter of '563 claims 11, 18, respectively, by virtue of their being mere Beauregard versions of respective claims 4 (instant and '563) as set forth above.

Specification

5. The disclosure is objected to because of the following informalities: the CROSS-REFERENCE section at page 1 needs to incorporate the latest USPTO official serial number pertinent to fill the blank spaces related or co-pending Applications.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The Federal Circuit has recently applied the practical application test in determining whether the claimed subject matter is statutory under 35 U.S.C. § 101. The practical application test requires that a “useful, concrete, and tangible result” be accomplished. An “abstract idea” when practically applied is eligible for a patent. As a consequence, an invention, which is eligible for patenting under 35 U.S.C. § 101, is in the “useful arts” when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The test for practical application is thus to determine whether the claimed invention produces a “useful, concrete and tangible result”.

The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. The following link on the World Wide Web is the United States Patent And Trademark Office (USPTO) reference in terms of guidelines on a proper analysis on 35 U.S.C. §101 rejection.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

Specifically, claim 1 recites a system including an interpretive engine, a native library, for mapping GUI commands or directives. From the disclosure (Drawings Fig. 1-3) the engine and any library implemented functions or code amount to software entities. Hence, the system claim in whole does not include hardware to support realization of said software functionality. According the 35 USC § 101, 'Functional Descriptive Material' (see 101 Guidelines, Annex IV, pg. 52-54) cannot be construed as belonging to any statutory category of subject matter, and further more, absent any hardware to provide tangible machine in order to yield real-world result, the mere listing of software is not deemed capable of generating a tangible, useful, and concrete result according to the Practical Application requirement as set forth in the Guidelines pdf file (see pg. 20-22). The claim thus analyzed is rejected for constituting what appears to be a non-statutory subject matter.

Claims 2-7 are rejected for not curing the above non-statutory impropriety of the base claim.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: indefinite relationship between native utility or library code for mapping and a interpretive engine for mapping.

That is, claim 1 recites ‘native library for mapping commands to native language’ and ‘interpretive engine uses the native library to map’; and as scanned from the Specifications, this mapping appears to be framework mapping of native environment language to any arbitrary language; or mere mapping done by users (see Specifications para 0006-0007, pg. 3). The mapping of GUI directives is disclosed as performed by the interpretive engine (see para 0018, 0024, 0027, 0038) so that directives are mapped into test specific language; and the *libraries* (see Drawing Fig. 3) are disclosed as being grouped and added in the course of the Gui process wherein as the interpretor translates received directives into tool-specific language. There is no action of mapping from a *native library* nor is there any utilization by the interpretive engine of this *native library* to map the above directives (otherwise termed as though the *interpretive engine* invokes the library for the library to provide mapping functionality). The language of the claim appears to use one native library for the action of mapping, but no where is there any relationship between native library in the context of mapping actions actually performed by the

Art Unit: 2193

framework or the interpretive engine as identified above. One would not be apprised as to what is the relationship or role played by the unsupported concept recited as 'native library' (Note: this very term nowhere to found in the Disclosure) when the term 'native' is not defined as native to which context (emphasis added), in the claim or in the Disclosure, particularly when the semantic conjunction of 'native' and 'library' (as a connected phrase) seems to entail an active role in mapping by this library. The support by the interpretive engine to provide mapping between user directives and underlying libraries-based tool-specific functions cannot be same as *native library* called upon for actively mapping nor is it same as 'interpretive engine using' this native library for mapping. The relationship between the latter engine (i) using this library to map and this library (ii) performing any mapping would be deemed hard to construe, in light of the Disclosure. That is, indefiniteness can be questioned in as many as the following forms: Are those two mappings (i) and (ii) a same action or distinct actions performed separately time-wise by same or separate entities? Does the act of mapping directives yield *functions or libraries type of components*? How exactly can this so-called 'native library' help the interpreter to translate GUI commands into tool-specific language?

When the Specifications has no mention of *native library* in the mapping effectuated by the interpretive engine (e.g. Figure 3), interpretation about the co-existence of both steps of mapping as claimed (e.g. native library for mapping, uses the native library to map) is deemed all the more complicated if not impossible. The claim is rejected for indefinite teaching amounting to omission of essential structural relationship between the elements being claimed. The above limitations regarding 'native library' and 'mapping' as a joined context will not be given full patentable weight; and this *mapping* will be treated as though GUI directives are mapped and

translated (by way of the framework and/or the user) into some manifestation in terms of code, libraries components, or native software for testing a target application, with 'native' interpreted as native to the language of the target application OR native to the framework or development environment.

Claims 2-7 are also rejected for failing to clarify on the function played by the native library in the context of the interpretive engine mapping action.

Claim 8 recites 'mapping using a native library, the generic commands' and interpretive engine uses the native library to map'. Here there is no clear relationship between framework mapping by way of a native library, and mapping performed by an interpretive engine USING said native library. The indefiniteness in relationship thus conveyed amounts to a lack of essential connectivity between framework, native library, interpretive engine, in the very context of mapping directives, absent Disclosure deliberate description about 'native library' whatsoever.

Claim 8, as in claim 1, is rejected for no providing essential teaching between elements claimed regarding this native library role in the mapping.

Claims 9-14 are also rejected for failing to remedy to the above indefiniteness.

Claim 15 recites 'native library' in the same language as claim 8, hence is rejected for not being definite in clarifying the relationship between the 2 mapping limitations.

Claims 16-21 are rejected for not remedying to the deficiency of the base claim.

11. Claim 1 recites the limitation "native library to map the directives" in line 8. There is insufficient antecedent basis for this 'directives' limitation in the claim; and claims 2-7 for failing to remedy to this lack of antecedent basis will be rejected likewise.

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 2193

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The feature termed as 'native library' for mapping appears extensive in all claims, thus critical or essential to the practice of the invention, but not included in the claim(s) in more enabling form, and even worse does not appear to be anywhere in the Specifications to enable one of ordinary skill in the art to construe how a native library is used for mapping directive. Claims 1, 8, 15 recites 'native library' in the recited mapping context, but this functionality of mapping is not disclosed in the Disclosure as using any 'native library', nor is this very concept ever recited once in the entirety of the Specifications. In light of the observations made in the § 112, 2nd paragraph rejection from above, claims 1, 8 and 15 for reciting *mapping* using this 'native library' amount to lack of enablement; and are rejected for not failing to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 2-7, 9-14, 16-21 are rejected for failing to provide enabling support to the above non-disclosed mapping limitations.

For prosecuting the claims, this 'native library' mapping functionality will be interpreted as set forth above in the § 112, 2nd paragraph rejection.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Mercury Interactive, “LoadRunner -Creating Vuser Scripts Windows and Unix Version 7.51”, ch. 1-4, 10-11, 22, *Mercury Interactive Corporation 2002* (hereinafter LoadRunner) URL:

<www.genesis.co.kr/image/procuct/pds/LoadRunner/Manual/LoadRunner_Generator.pdf>

As per claim 1, LoadRunner discloses a system that provides a generic user interface testing framework (e.g. ch. 2: pg. 5-8), comprising:

an interpretive engine that receives and translates generic interface commands from a tester (e.g. ch. 2: Recording Vuser script, step 1-19 -pg. 26-32; ch. 2: Running Vuser: *it is processed by an interpreter* – pg. 15-16); and

a native library for mapping the generic interface commands to native language (e.g. *number of functions ... inserted into the script* - ch. 2, pg. 7-8; ch. 11: *JDK libraries or custom classes* – pg. 155; ch. 22: *object, interfaces, libraries* -pg. 298; ch. 22: *select desired library, exclude a type of library* - pg. 304-309 - Note: interface interpreting user creation of a VUscript using Vuser by listing and providing objects/functions names from native libraries like COM or **JDK reads on** mapping generic interface commands to libraries-based specific functions for tool-dependent codes – e.g. *JDK package*, COM library type specific: ch. 3, pg. 160, ch. 11, pg. 304; see *LR functions, protocol-specific* - ch. 2, pg. 14) understood by a particular test software tool; and,

wherein the interpretive engine uses the native library to map the directives into tool-dependent codes (e.g. ch. 2: pg. 15-16; ch. 22: *object, interfaces, libraries* -pg. 298; ch. 22: *select desired library, exclude a type of library* - pg. 304-309) that are then passed to the test software tool (e.g. ch. 2, pg. 5-7).

As per claims 2-3, LoadRunner discloses wherein the system includes the test software tool stored locally on the same computer or machine (e.g. *start Recording, end Recording* - ch. 3: pg. 26-34; ch. 22, pg. 307); wherein the test software tool is stored at another computer or machine (e.g. ch. 2: *by executing server API* – pg. 15 top; ch. 10).

As per claims 4-5, LoadRunner discloses wherein the editor provides a graphical interface to allow the tester to enter said test commands (ch. 3: pg. 26-34; ch. 22, pg. 304-309), wherein the editor communicates the test commands as a script of directives (e.g. ch. 2, 3; ch. 4).

As per claim 6, LoadRunner discloses wherein the test commands can be created offline and subsequently communicated to the interpretive engine (e.g. *remote TestDirector* - ch. 10, pg. 146-147 - Note: processing LoadRunner directives then connecting with TestDirector reads on offline LoadRunner script subsequently via connection to remote TestDirector to have TestDirector to interpret LoadRunner created script language).

As per claim 7, LoadRunner discloses wherein the test software tool can be removed and replaced with another test software tool (ch. 22: *select desired library, exclude a type of library* - pg. 304-309).

As per claim 8, LoadRunner discloses a method for providing a generic user interface testing framework (e.g. ch. 2: pg. 5-8), comprising the steps of:

allowing a tester to enter a number of generic test commands or directives via an editor or interface (ch. 2: Recording Vuser script, step 1-19 -pg. 26-32; ch. 2: Running Vuser: *it is processed by an interpreter* – pg. 15-16); and

translating, using an interpretive engine, the generic interface commands received from the tester, and mapping, using a native library, the generic commands to native language understood by a particular test software tool (refer to claim 1),

wherein the interpretive engine uses the native library to map the directives into tool-dependent codes that are then passed to the test software tool (refer to claim 1).

As per claims 9-10, refer to claims 2-3 respectively.

As per claims 11-12, refer to claims 4-5 respectively.

As per claims 13-14, refer to claims 6-7 respectively.

As per claim 15, LoadRunner discloses a computer readable medium including instructions stored thereon which when executed cause the computer to perform the steps of:

allowing a tester to enter a number of generic test commands or directives via an editor or interface; and

translating, using an interpretive engine, the generic interface commands from the tester, and mapping, using a native library, the generic commands to native language understood by a particular test software tool,

wherein the interpretive engine uses the native library to map the directives into tool-dependent codes that are then passed to the test software tool;

all of which having been addressed in claim 8 above.

As per claims 16-17, refer to claims 2-3 respectively.

As per claims 18-19, refer to claims 4-5 respectively.

As per claims 20-21, refer to claims 6-7 respectively.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193
February 27, 2008